

WALTER WILSON FROGGATT.  
1858-1937.

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(With Portrait.)

Walter Wilson Froggatt, who died at his home at Croydon, N.S.W., on 18th March, 1937, was one of the most adventurous and widely travelled of the pioneer naturalists of Australia. Perhaps he inherited his love of science from his father's side of the family and some of his spirit of adventure from his mother's. His father was George W. Froggatt, an English architect who passed his early days in Yorkshire where the Froggatt family had lived for some generations, mostly in the neighbourhood of Froggatt Edge. For generations one or more members of the family had been interested in science, but George's brothers were successful industrialists. George Froggatt married the daughter of Captain Giacomo Chiosso, an Italian of noble birth, whose castle and fortune were destroyed by Napoleon and who spent an adventurous time in Italian and Spanish wars; from a French prison he succeeded in making his escape to England, where he was joined by his wife.

George Froggatt and his wife came to Australia some years before their son was born at Blackwood, Victoria, on 13th June, 1858. Shortly afterwards they removed to Bendigo, in the days when the rich gold-bearing quartz reefs of the famous Victorian goldfields were so productive, and George Froggatt became interested in mining ventures.

As a small child Walter Froggatt was very delicate. His mother took him for walks in the bush and interested him in the things he saw—plants, animals and rocks. He apparently took keenest interest in the insects, for on his sixth birthday he received his first insect collecting-box, a treasure which still remains in the family. During this early period he laid the foundation of his life's great interest—an interest which ultimately became his life-work and which may best be exemplified by his continued interest in, and influence on, the work of the Field Naturalists' Club (later the Naturalists' Society) of New South Wales. In the grounds of his home at California Gully, Bendigo, there were a small zoo, pools for water fowl and for tortoises, and a

boxroom built in a large gum tree where he could observe the bird life. His interest in Natural History kept him out of doors for much of his time and probably was one reason for a gradual improvement in his health. His early education was received at the Bendigo Corporate High School, where he was one of the first pupils, under the headmastership of the Rev. J. S. Moir, M.A. At this stage his favourite book was Kirby's "Textbook of Entomology".

After he left school he spent some four years on his father's pastoral holding at the Terricks in the Kow Swamp and Gunbower Creek district, where he had ample opportunity of increasing his knowledge of the bush and incidentally of adding to his collection of insects.

Then followed a period of wandering. In 1880 he went with George O'Connor to the newly-discovered gold occurrence at Mount Browne, near Milparinka. This proved an unsuccessful venture and the party went on northwards into Queensland, reaching Mackay in March, 1882. With two others, Froggatt then went on to Herberton and the tin country; not finding work there they walked back the 200 miles to Cairns, where, for want of something better, they took a contract for cutting pencil (white) cedar. In the tropical scrub insect life was abundant and another fine collection was made. From Cairns he went south to Townsville, then to Charters Towers, and on to Hughenden (walking 120 miles through scrub, sand and spinifex) and Norwood. At Hughenden he accepted the post of mailman between Cambridge Downs Station and Mt. Emu Plains, involving a weekly journey, 140 miles each way, over bush tracks on the basalt tableland. This, too, offered an excellent opportunity for insect collecting, of which he took full advantage. In 1883 he returned to Bendigo to help his father in the management of the Mangat Hill lease near Mount Hope. Here he continued his insect collecting, which brought him into touch with the Victorian entomologist, Charles French, senior, and with Baron Ferdinand von Mueller, who took a kindly interest in the keen young naturalist. It was this interest of Baron von Mueller that gave Froggatt the opportunity of turning his hobby of collecting natural history specimens into his life's work. In 1885 the Royal Geographical Society of New South Wales arranged to despatch a scientific exploring expedition to New Guinea and, partly as a result of the Baron's good offices, Froggatt was appointed entomologist and assistant zoologist. The expedition left Sydney on 10th June, 1885, on the "*Bonito*", a steam launch of 70 tons, and spent about four months in New Guinea, returning to Sydney on 4th December, 1885. Insects and birds were plentiful but the conditions for collecting were not very favourable. Froggatt published an account of his experiences under the title "New Guinea Expedition".

Not long after his return from New Guinea, Froggatt was engaged by the Hon. William Macleay as a collector, and early in 1886 he set out for northern Queensland. Here he made extensive collections in the Cooktown, Herberton, Cairns and Russell River districts, districts of which he had already gained some knowledge in his wanderings about four years earlier. He returned to Sydney with his collections and on 10th March, 1887, set out for north-west Australia, arriving at King's Sound on 14th April. He collected in the vicinity of Derby till 20th May and then went up the Lennard River to the King's Sound Pastoral Company's Station in the Barrier Ranges, a lonely journey of 150 miles by himself, with horse and spring cart.

He travelled leisurely, collecting by the way, stopping at Mount Marmion Station, The Devil's Gap, and the Napier Range, and arrived at the Station on 3rd June. He was kept fully occupied in collecting—insects were extremely abundant and along some of the streams there was an abundance of wild life. Near Luken's Homestead he experienced one of those wonderful collecting nights that come but rarely to the naturalist. He was reading by candlelight within his shelter when he heard a great commotion, of which he says: "This was caused by clouds of insects trying to get in to the lighted candle, so I crawled out, placed the candle on the top of the tent, and set to work with killing-bottles and tubes. Working throughout the night, I captured thousands of insects of many species and families." On this journey he collected wallabies, bush rats, bandicoots, crocodiles, lizards, fishes, and birds. The rapid changes that may take place in a native fauna are indicated by the fact that at this

time bandicoots were particularly abundant in the neighbourhood of the Pastoral Company's homestead, whereas, as Froggatt remarks, "Dr. Mjöberg, the leader of the Swedish Expedition, thirty years later, told me that he did not find one bandicoot in the whole of the Kimberleys".

He spent about three months at the Station; while there he went beyond the Barrier Range towards the headwaters of the Lennard River searching for cattle which had strayed, and he also accompanied the police in their hunt after some outlaw blacks in the rough country of the Oscar Ranges. His collections accumulated to such an extent that in August he took them to Derby.

Obtaining fresh supplies at Derby he set out for the Fitzroy River. On this journey he suffered from sun fever and lay alone in his tent for eight days. He recovered, however, and continued on his way. He camped for a time at an out-station of Yedia, then went to Liveringar Station and Mt. Anderson, and later to Palm Springs. After leaving Palm Springs he suffered another attack of fever, near Yedia Station, during which he was unable to move for several days. On his recovery he sold his outfit to the manager of the Station and set out for Derby with the bullock team dray.

He was still far from well, for his own account reads: "I lay on the top of the waggon too sick to care what the bullocks or blackboys did." At Derby he gladly accepted the kind invitation of Mr. Gunn, manager of the Pastoral Company's Station, to return to the Barrier Range to recover his health. He remained there till about the middle of February, having to wait for the retreat of the floods. He left Kimberley on 22nd February by the "S.S. *Otway*" and called at Cossack, Broome, and Cygnet Bay on the way to Fremantle, finally reaching Sydney on 31st March, 1888, after an absence of just more than a year, during which he circumnavigated Australia.\*

He then went to England at the invitation of his uncle, who took a great interest in his naturalist nephew; he took the opportunity of visiting many museums and universities and returned to Australia with equipment for research work. For a time he worked for William Macleay on the Macleay Collections until the Macleay Museum was handed over to the University. In 1889 he was appointed assistant and collector at the Sydney Technological Museum under the curatorship of J. H. Maiden. Here he was able to pursue his entomological studies, and he commenced publication of the results of his work in the PROCEEDINGS of this Society, his first paper appearing in 1890. During this period he commenced his extensive studies of Termites (White Ants), of which he had specimens from all parts of Australia. In 1895 he applied unsuccessfully for the Curatorship of the Museum at Perth, Western Australia, and in 1896 he was appointed Government Entomologist of New South Wales, a position which he occupied until his retirement in 1923.

During his long term of office as Government Entomologist, Froggatt was very active, not only in his official duties, but in many other activities connected with various aspects of Natural History and its encouragement. In addition to his entomological work he was Vine Inspector and later Inspector under the Vegetation Diseases Act.

In 1907 he was sent abroad to inquire into the best methods of dealing with fruit flies, etc. He visited some twenty countries and his report contained a fund of information regarding (i) the value of introduced insect parasites, (ii) fruit flies and measures for checking them, and (iii) the value of parasites in the control of insect pests.

In 1909 he visited the Solomon Islands to report for Lever Pacific Plantations on insect pests attacking coconut palms and sugar cane.

In 1913 he visited the New Hebrides to report on pests of the coconut palms for the French Planters' Association.

During the period 1914-1918 he did much work on weevils and their attacks on stored wheat for the Wheat Board, and had much to do with the establishment of a laboratory for experiments on the sheep fly at Warrah in New South Wales.

In 1922 he visited Queensland to investigate the banana beetle and the occurrence of bunchy top in bananas, and in 1923 he was chiefly occupied in a study of timber borers.

\* Froggatt gave an account of this trip to the north-west as a Presidential Address to the Naturalists' Society of N.S.W. (*Aust. Naturalist*, ix (4), 1934, pp. 69-82.)

After his retirement in 1923 he was retained for about four years as Forest Entomologist in the Department of Forestry, his final retirement from official duties taking place on 31st March, 1927.

He became widely known throughout the scientific world as an authority on economic entomology and for his published work on a wide range of entomological subjects. Soon after his appointment he commenced work on the Psyllidae; in 1906 he prepared a text-book on entomology; in 1912 he was working on Australian Coccidae, a group in which he retained an active interest for the rest of his life. In 1919 he published a series of coloured plates of Australian Birds (especially those of importance in the economic sphere). In 1921 a comprehensive bulletin on Australian Coccidae was issued, as well as a work on "Forest Insects" for the Forestry Department. For many years he lectured on entomology as part of the course in Agriculture at the University of Sydney. He contributed a section on Australian Insects for the handbook issued on the occasion of the British Association meeting in Australia in 1914. Apart from his long list of papers published in scientific journals (for which see Musgrave's "Bibliography of Australian Entomology", pp. 101-114), his most widely known works include: "Australian Insects" (1907), "Some Useful Australian Birds" (1921), "Forest Insects of Australia" (1923), "Forest Insects and Timber Borers" (1927), "Handbook of Australian Insects" (1933), and "Handbook of Australian Spiders and Their Allies" (1935). Of his bulk of published papers, Musgrave says: "He has produced more papers on Australian insects than any other worker."

Froggatt was one of the last survivors of a generation which produced many noted naturalists. From his earliest days he was interested in all forms of life, but he had a special fondness for the insects. He had keen powers of observation and was quick to note the habits of the species he collected. His very wide experience as a collector gave him an intimate knowledge of the relationships between species and their environment. This attention given to life-histories and habits made his work more valuable, particularly in regard to destructive pests, and enabled him to make particularly important contributions in connection with the natural enemies and parasites of pest species.

In his later years he was a voluminous contributor of popular articles in the press, a form of contribution for which his wide interests fitted him, and which was much appreciated by the public.

He was a Foundation Member and Councillor of the Wattle League, the Wild Life Preservation Society of Australia and the Gould League of Bird Lovers. He was a member of the first Council of the New South Wales Naturalists' Club—the three surviving members of this original Council are Professor J. P. Hill, Dr. G. A. Waterhouse and Mr. D. G. Stead. He gave, indeed, the most continuous and consistent support to the Naturalists' Society from its commencement in 1900 till his death. For a number of years before his death he was President and his continued occupation of the office was by the sincere desire of the members. He was guide, philosopher and friend to a long succession of youthful naturalists and his efforts to help so many of them in the early stages of their enthusiasm for various branches of natural history have surely borne abundant fruit. He gave a great deal of practical encouragement in matters of arboriculture, and the conservation and use of Australian plants. His enthusiastic voluntary work in encouraging the planting of Australian trees and shrubs in reserves and parks has had notable results. Individual examples in which he was specially interested are the reserve at Ball's Head and the street in which he lived at Croydon.

He always gave loyal and enthusiastic support and encouragement to the Societies of which he was a member. He was elected a Fellow of the Linnean Society of London in 1897, a Fellow of the Royal Zoological Society of New South Wales in 1931, and was a member of the Australian National Research Council from 1921 to 1932. He was a member of the Linnean Society of New South Wales from 1886, was President 1911-1913, and a member of Council from 1898 till his death. In his last few years he took an active interest in the Royal Australian Historical Society.

His magnificent collection of insects was purchased by the Commonwealth Government in 1927, and is now housed at Canberra. His collecting instinct extended to books,

and he built up a valuable library of natural history works, as well as many first editions and rare books of general literature and a good selection of Australiana.

He was immensely proud of his garden, and it was quite unusual to find him without some rare or perfect bloom from this garden in his buttonhole.

Froggatt was a loyal and unselfish friend. He was fond of human fellowship and was a generous and genial host. There were few visiting naturalists who did not partake of the open hospitality of himself and his family, and his friends, scientific or not, were always assured of a hearty welcome at his home, "Bonito", named after the little ship which carried the expedition to New Guinea in 1885.

A.B.W.

